

Evaporation Gauge

- High accuracy and resolution
- Analog output
- Corrosion-resistant materials

Description

The Model 6844-A Evaporation Gauge measures the water level in a standard evaporation pan and provides an output proportional to that level. The gauge employs a unique balanced sensor assembly to allow high resolution and simple data collection without tedious hook gauge readings and time-consuming, frequent visits to the evaporation site. The sensor assembly includes three polypropylene floats which rise and fall with the water level in the evaporation pan. The movement of the floats is transferred to a 5K-ohm potentiometer by means of a rack and gear assembly. The mechanism is designed to eliminate backlash. The output range is 0 to 6 inches (0 to 150 mm), with a measuring accuracy of ± 0.015 inches.

Movement of the float assembly also moves a pointer over an indicating scale for convenient water level checks and comparison to output device readings. The scale is graduated in English units on one side and metric units on the other.



Features

The 6844-A is built completely from corrosion resistant materials. The base and main support are stainless steel. The float carrier is guided by teflon bearings on stainless steel shafts. Rotation of the carrier is prevented by two teflon rollers. No part of the moving mechanism, with the exception of the three floats, contacts the water at any time. A stainless steel stillwell with an ABS plastic cap covers the entire sensor assembly, protecting it and preventing false readings due to wind or rain. The stillwell includes a stainless steel clamp to attach the gauge to the side of the evaporation pan. The gauge also has a

bubble level and two leveling screws to assist in proper installation.

The potentiometer output can be input directly to a data acquisition system. Alternatively, it can be input to a signal conditioning module.

Specifications

Evaporation Gauge

Sensor:	3-float assembly on vertical guide rods
Transducer:	5K-ohm potentiometer
Range:	0-6" (0-150 mm)
Resolution:	infinite
Accuracy:	±0.015" (with clean guide rods)
Potentiometer linearity:	±0.5%
Cable:	3-conductor shielded, 50' provided
Size:	
Sensor assembly:	7.75" dia x 21" H (197 x 533 mm)
Stillwell:	9" dia x 24" H (229 x 610 mm)
Weight/shipping:	15 lbs/20 lbs (6.8 kg/9.1 kg)

Note: Signal conditioning available for standard voltage and current outputs.

Ordering Information

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6844-A	Evaporation Gauge; includes 50' of cable
T600503	Additional Cable, 3-conductor, 20 AWG shielded